

Appl. No. 09/450,640
Amtd. dtd. May 17, 2005
Reply to Office action of February 17, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-38 (canceled)

Claim 39 (new): An audio communications control system useful in training operations on tactical systems communications equipment onboard a ship, the audio communications control system comprising:

a plurality of independent species comprising ship communications equipment selected from the group consisting of a tactical radio telephone system, an interphone system, a sound power telephone system, and a surface ship telephone system, the ship communications equipment being operable from a plurality of remote locations onboard a ship for communication with a centralized control center, the ship communications equipment including a plurality of communications systems, wherein at least one of the plurality of audio communications systems includes audio equipment and signal processing;

a tactical training system operable with the central control center for interfacing with tactical equipment distributed through the plurality of remote locations, the tactical training system providing a communications connection to a wide area network (WAN) for communicating with other ships participating in a training exercise;

a headset having a left speaker, a right speaker, and a microphone for providing an operator with voice transmission;

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an audio interface operable between the tactical training system and the headset, the audio interface providing an electrical connection to the ship communications equipment for operation therewith, the audio interface switching discrete audio communications connections from any ship communications equipment and routing audio signals representative of the discrete connections to each of the left speaker and the right speaker, and from the microphone of the headset; and

an operator control interface operable with the audio interface for controlling the routing and switching of the audio signals, the operator control interface including an interactive graphical display for selection of the communications equipment to be operable with the headset.

Claim 40 (new): The audio communications control system according to Claim 39, wherein the tactical training system comprises a battle force tactical trainer.

Claim 41 (new): The audio communications control system according to Claim 39, wherein the audio interface comprises a central processing unit operable with the operator control interface for processing control functions thereof, and wherein the central processing unit receives input from a computer mouse for selection of the routing and switching.

Claim 42 (new): The audio communications control system according to Claim 39, further comprising:

a personal computer operable with the audio interface;

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a monitor operable with the personal computer for displaying the graphical display; and

an input device for operation with the operator control interface.

Claim 43 (new): The audio communications control system according to Claim 39, wherein the input device comprises a computer mouse operable with the monitor for selecting the communications system and routing of audio signals to the headset.

Claim 44 (new): The audio communications control system according to Claim 39, wherein the audio interface includes a network control module for sending and receiving network packets of information across the WAN.

Claim 45 (new): The audio communications control system according to Claim 39, wherein the audio interface includes a digital signal processor for converting an analog audio signal received from the communications equipment into a digital signal for processing thereof.

Claim 46 (new): The audio communications control system according to Claim 45, further comprising a time encoder operable with a global positioning system for time stamping of audio packets transmitted and received via the WAN.

Claim 47 (new): The audio communications control system according to Claim 39, wherein the graphical display of the operator control interface comprises left and right

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channel graphical user interface buttons for selection of a desired audio connection to the communications equipment.

Claim 48 (new): An audio communications control system comprising:

a single headset having a left speaker, a right speaker, and a microphone for providing an operator with voice transmission;

an audio interface for operating between a plurality of independent species of audio communications equipment and the single headset, the audio interface providing an electrical connection to the plurality of voice communications systems for operation therewith, the audio interface switching discrete audio communications signals therefrom and routing the audio signals to one of the left speaker and the right speaker, and from the microphone of the headset;

an operator control interface operable with the audio interface for controlling the routing and switching of the audio signals, the operator control interface including a display for viewing by the operator and manual selection of the discrete audio communications signals to be operable with the single headset; and

the audio communications equipment operable from a plurality of remote locations for communication with a centralized control center, the communications equipment including a plurality of audio communications systems, wherein at least one of the plurality of audio communications systems includes audio equipment and signal processing wherein the communications equipment includes communications equipment selected from the group consisting of a tactical radio telephone system, an interphone system, a sound power telephone system, and a surface ship telephone system.

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Claim 49 (new): A method for communicating with a plurality of voice communications systems, within a global positioning system the method comprising the steps of:

providing a single headset having a left speaker, a right speaker, and a microphone for providing an operator with voice transmission;
connecting an audio interface between a plurality of independent species of audio communications systems and the single headset, the audio interface switching discrete audio communications signals from the plurality of audio communications systems and routing the discrete audio signals to one of the left speaker and the right speaker, and from the microphone of the headset in response to a command from an operator;

providing a graphical user interface operable with the audio interface for controlling the routing and switching of the audio signals, the operator control interface including a push button styled display for viewing by the operator and manual selection of discrete audio communications signals for operating with the headset, wherein the display of the operator control interface comprises a graphical user display including scenario control buttons for selection of a desired virtual frequency channel of the WAN for input to one of the left speaker and the right speaker, as desired;

operating the graphical user interface for connection to a first discrete audio communications system and routing a first discrete audio signal to one of the left speaker and the right speaker of the single headset;

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operating the graphical user interface for connection to a second discrete audio communications system and routing a second discrete audio signal to another of the left speaker and the right speaker of the single headset;

operating the graphical user interface for connection of the microphone of the headset to a third discrete audio communications system.

selecting control buttons of the graphical user interface for communication between the headset and a wide area network (WAN), wherein the audio interface includes a network control module for sending and receiving network packets of information across the WAN; and

time encoding a recording of voice communications using the global positioning system for time stamping of audio packets transmitted and received via the WAN.